FIBER-THERM
FRP PIPING SYSTEM

FIBER-THERM
THERMACOR’S FIBER-THERM is a factory-fabricated, pre-insulated piping system for below ground distribution of chilled water, heating water, domestic hot water, process fluids, and condensate return. The system is designed with Fiberglass Reinforced Plastic (FRP) pipe, closed cell polyurethane foam insulation, and High Density Polyethylene (HDPE) jacket.

Carrier Pipe
- FRP - Fiberglass Reinforced Plastic
- ASTM D2996
- MIL-28584B

Polyurethane Insulation
- Density
  > 2.0 lbs/ft³
- "K" Factor
  < 0.16 @ 75°F
- Compressive Strength
  > 30 psi
- Closed Cell Content
  > 90% @ 75°F

Jacket
- High Density Polyethylene (HDPE)
**GENERAL**
All underground piping materials transporting chilled water, heating water, domestic hot water, process fluids, and condensate return shall be **FIBER-THERM** as manufactured by **THERMACOR PROCESS INC.** All straight pipe, fittings, insulating materials, and technical support shall be provided by the manufacturer.

**SERVICE PIPE**
The carrier or service pipe shall be FRP, fiberglass reinforced epoxy pipe. Pipe and fittings are capable of operating from -40 to 250°F at 140 psi. Piping is provided as plain-end by plain-end with a coupling for adhesive joining for 2” thru 6” and integral bell and spigot for 8” thru 16”. All FRP pipe and fittings shall be joined with a matched taper epoxy adhesive joint cured by an external heat source.

**INSULATION**
Insulation of the service pipe shall be rigid polyurethane foam with a minimum 2.0 lbs/ft³ density, 90% minimum closed cell content, minimum and a “K” factor not higher than .16 at 75°F per ASTM C518. The polyurethane foam shall be CFC-free. The polyurethane foam shall completely fill the annular space between the service pipe and jacket, and shall be bonded to both. Insulation shall be provided to the minimum insulation thickness specified.

**JACKET**
The outer protective jacket shall be extruded, black, high density polyethylene (HDPE). No FRP, HDUP, or tape jacket allowed.

**FITTINGS**
Fittings shall be FRP, filament wound and joined with Thermosetting epoxy adhesive and cured with an external heat source. Fittings are not insulated and are poured in concrete thrust blocks at all changes of direction. Flanges are filament wound matching ANSI B16.1 for 150# flanges. **Thrust block design and sizing is the responsibility of the design engineer.**

**FIELD JOINTS**
Service pipe shall be hydrostatically tested as per the Engineer’s specification with a Manufacturer’s recommendation of 1.5 times the specified pressure of the system. Joints between pipe sections are not insulated on FRP systems. **At the Engineer’s option**, straight field joints may be covered by a split or oversized sleeve and sealed with a heat shrink sleeve to prevent the ingress of moisture or debris. All jacketing materials shall be furnished by THERMACOR.

**INSTALLATION**
Installation of the piping system shall be in accordance with the manufacturer’s instructions. Factory trained field technicians shall be provided for critical periods of installation, unloading, field joint instruction, and testing.

---

*For alternate specifications, please contact THERMACOR.*

---

**THERMACOR PROCESS INC.**
1670 Hicks Field Road East
Fort Worth, Texas 76179-5248
P.O. Box 79670
Phone (817) 847-7300
Fax (817) 847-7222
www.thermacor.com

---

The information contained in this document is subject to change without notice. THERMACOR PROCESS INC. believes the information contained herein to be reliable, but makes no representations as to its accuracy or completeness.

THERMACOR PROCESS INC. sole and exclusive warranty is as stated in the Standard Terms and Conditions of Sale for these products. In no event will THERMACOR PROCESS INC. be liable for any direct, indirect, or consequential damage.